

Potential Mining Developments in the Northern Territory

September 2023

Cautionary Notice – Due to the impacts of the coronavirus COVID-19, the majority of resource companies are advising investors to remain cautious on relying on any previous or recent guidance in relation to project performance and project development. The majority of companies developing mining projects in the Northern Territory are junior companies and have been impacted by financial market restrictions, National, State and Territory border closures, combined with internal access restrictions to regional and remote areas that have contributed to delays in project financing and proposed development schedules. Significant shortages in available skilled workforce is also likely to delay construction and production schedules.

This document contains a summary of potential new mining developments in the Northern Territory over the next 1-5 years. It is not intended to be comprehensive and does not contain a number of projects that are at various stages of feasibility study.

Information presented in this report is supplied by the proponent company or from ASX and other public documents. All information should be confirmed with the proponent Company. For further information on mining developments, contact the Director Project Facilitation & Development of the Northern Territory Department of Industry, Tourism and Trade or visit the website at www.minerals.nt.gov.au or <https://resourcingtheterritory.nt.gov.au>.

1. Recent (Past 24 months)

Company	Project	Location	Product	Development
Newmont Mining	Tanami Expansion 2	Tanami	Gold	Mine expansion
ICA Mining (Elmore)	Peko Tailings	Tennant Creek	Fe, Au, Cu, Co	Reopen mine
Core Lithium	Finniss (Grants)	Darwin	Lithium	New mine

2. Pending (Next 12 months)

Company	Project	Location	Product	Development
Arafura Resources	Nolans	Alice Springs	Rare Earths	New mine
KGL Resources	Jervois	Alice Springs	Copper	Reopen mine
Linecrest	Frances Creek	Pine Creek	Iron Ore	Reopen mine
Northern Iron	Warrego	Tennant	Magnetite	Reopen/Rehab
GEMCO	Eastern Leases	Groote Eylandt	Manganese	Mine Expansion
TCMG	Nobles Nob	Tennant	Gold	Reopen mine

3. Potential (Next 12-60 months)

Company	Project	Location	Product	Development
Avenira	Wonarah	Tennant	Phosphate	New mine
Castile Resources	Rover 1	Tennant	Copper, Gold	New mine
Core Lithium	Finniss (BP33)	Darwin	Lithium	Mine Expansion
Enova Mining	Charlie Creek	Alice Springs	Rare Earths	New mine
Korab Resources	Winchester	Batchelor	Magnesite	New mine
Lucapa Diamonds	Merlin	Gulf	Diamonds	Reopen mine
PNX Metals	Fountain Head	Pine Creek	Gold	Reopen mine
PNX Metals	Hayes Creek	Pine Creek	Base metals	Reopen mine
Primary Gold	Mt Bundy	Darwin	Gold	Reopen mine
Tellus Holdings	Chandler	Alice Springs	Salt products	New mine
Thor/Investigator	Molyhil	Alice Springs	W, Mo	Reopen mine
Tivan (TNG)	Mt Peake	Alice Springs	V, Ti, Fe	New mine
Verdant Minerals	Ammaroo	Tennant	Phosphate	New mine
Vista Gold	Mt Todd	Katherine	Gold	Reopen mine
Winchelsea Mining	Winchelsea	Groote Eylandt	Manganese	New Mine

Pending Mine Developments - Next 12 months

Mine Name	NOLANS
Company	Arafura Rare Earths Limited (Company name change- ASX 26 Nov 2022)
Contact	Catherine Huynh – Company Secretary Stewart Watkins – General Manager Projects Phone: (08) 6370 2800 Email: arafura@arultd.com
Location	135 km northwest of Alice Springs
Description	New mine. Open cut mining, beneficiation to a mineral concentrate and subsequent chemical processing to rare earth products for export. Additionally a merchant grade phosphoric acid product will be exported.
Product	Rare earths & Phosphoric acid.
Resource	56 Mt containing 2.6% REO, 11% P ₂ O ₅
Reserve	29.5 Mt containing 2.9% REO, 13% P ₂ O ₅
Mine Life	38 years based on mining inventory.
Approvals	Environmental – NT EIS assessment completed in Dec 2017. Assessment completed by DoEE Canberra with approval issued in May 2018. Section 14A variation assessment completed with NT EPA Statement of Reasons issued September 2019. Community – Native Title Agreement executed with Native Title Holders in June 2020. Mining – Project Mineral Leases granted July 2020. Mining Authorisation and access authorities granted Nov 2022 following approval of Mining Management Plan. Groundwater extraction licence granted in March 2023.
Proposed Schedule	Early works construction underway on site, targeting financial close in 2023 and commencement of a 30 month full construction period in the first half of 2024. Schedule subject to funding.
Jobs	Construction – 2023, subject to funding Production – H2 2025
Capex	Construction – 682 Production – 366 (full time) A\$1,590 Million (Refer to ASX announcement dated 11 Nov 2022)

Mine Name	JERVOIS
Company	KGL Resources Limited
Contact	Denis Wood – Executive Chairman Phone: (07) 3071 9003 Email: info@kglresources.com.au
Location	Approx 380 kms by road north-east of Alice Springs
Description	Development of the Jervois Copper Mine based on open cut and underground operation. Ore will be processed via conventional flotation processing facility to produce a copper concentrate Project undergoing further optimisation studies. PFS released Dec 2020 and Feasibility Study released in Nov 2022.
Product	Copper concentrate with silver and gold credits.
Resource	23.80 Mt @ 2.02% Cu & 25.3 g/t Ag and 0.25g/t Au (ASX 14 Sept 2022) (containing 465,000 tonnes Cu, 18.9 million ounces Ag & 187,100 ounces Au)
Reserve	11.7 Mt @ 2.1% Cu, 29.8 g/t Ag & 0.29 g/t Au (ASX 15 Nov 2022)
Mine Life	Initial 11.75 years (ASX 15 Nov 2022)
Approvals	Environmental - EIS submitted in Oct 2018. Supplement to EIS submitted July 2019. NT EPA recommendations for Project to proceed received 30 September 2019. Mining – Mining Management Plan approved and Authorisation granted in Jan 2021. Groundwater extraction licence granted April 2021 & surface water licence in July 2021. Workstreams pre-FID will focus on growing the resource, operating cost optimisation and risk management, with the goal of commencing construction in 2023, subject to FID and favourable market conditions.
Proposed Schedule	Construction – H2 2023, subject to FID & market conditions Production – H1 2025
Jobs	Construction – 200 Production – 200
Capex	Initial Capex of \$298M (ASX 15 Nov 2022)

Mine Name	FRANCES CREEK
Company	Linecrest Pty Ltd
Contact	Rodney Illingworth – Managing Director Phone: 0439 844 830 Email: rodney@rai.net.au
Location	Approx 180 kms SE of Darwin and 25 kms NE of Pine Creek.
Description	Reopen the Frances Creek Iron Ore Mine to extract remnant ore from existing open pits. Conventional open pit mining with onsite crushing and screening of DSO and DSM material. No chemical processing or treatment will occur. Ore will be trucked to the nearby Frances Creek rail siding and railed to Darwin Port for export.
Product	Iron ore lump and fines @ ~ 60% Fe at 1.5 Mtpa
Resource	23 Mt @ 53% Fe
Mine Life	Initial mine life of 7 years
Approvals	Environmental - 2006. Mining – subject to approval of MMP. Amended Mining Management Plan submitted in Feb 2023 & resubmission end Sept 2023. Targeting MMP approval in Q4 2023.
Proposed Schedule	Construction – Q 4 2023 Production – Q4 2023
Jobs	Construction – 50 Production – 150
Capex	US\$5M.

Mine Name	WARREGO REHABILITATION PROJECT
Company	Northern Iron Pty Ltd
Contact	Nathan Doab – General Manager Phone: 0438 925 944 Email: nathan@northern-iron.com.au
Location	Approx 50 kms NW of Tennant Creek
Description	Recovery from the Warrego low-grade stockpiles via excavation and processing through a wet magnetic separation plant to produce a magnetite concentrate. Non-magnetic material will be dewatered and deposited back into the existing dams and rehabilitated. The process will reduce the stockpile by approx. half of the original quantity. No chemical processing or treatment will occur. Magnetite concentrate will be trucked to Argyle Rail Siding (along the Warrego Road) and railed to Darwin Port for export.
Product	Magnetite concentrate (high grade).
Resource	9.11 Mt of stockpiles (JORC 2012) containing 2.91 Mt Fe @ +67%
Mine Life	3-6 years
Approvals	Mining Management Plan submitted in Feb 2022 and approved June 2022.
Proposed Schedule	Construction – Q 4 2023, subject to finance Production – Q1 2024
Jobs	Construction – 20-30 Production – 30-40
Capex	\$48M

Mine Name	GEMCO – EASTERN LEASES
Company	GEMCO
Contact	DK Mukhopadhyay Email: RRGovernance@South32.net
Location	Approx 650 kms SE of Darwin
Description	Develop a number of additional quarries on the Eastern Leases, approx. 2 kms east of the existing mine. Ore will be trucked to the existing GEMCO mine facilities for processing and exported from the existing Milner Bay port.
Product	Manganese ore
Resource	The Mineral Resource and Ore Reserves within the Eastern Leases is reported as part of the total Mineral Resource and Ore Reserves for GEMCO and is published in the Strategy and Business update on 16 May 2023 and available at www.south32.net
Mine Life	FY28
Approvals	NT Environmental Assessment completed in March 2016. Commonwealth EPBC approvals obtained in June 2016. ALRA Mining Agreement obtained in May 2016. Mineral Leases granted in August 2016. NT Aboriginal Sacred Sites Act Authority Certificate obtained in November 2016. Mining Management Plan submitted in Sept 2021 and approved Feb 2022. South 32's manganese joint venture approved the Eastern Leases South life extension project, which will extend the life of the operation to at least FY28. South 32 expects to invest US\$44M over FY24 and FY25 to complete the life extension project. First ore is expected in FY25.
Proposed Schedule	Construction – FY24 Production – FY25
Jobs	Construction – TBA Production – Existing Workforce
Capex	US\$44M

Mine Name	NOBLES NOB
Company	Tennant Consolidated Mining Group Pty Ltd
Contact	Michael Tennant – Territory Manager Phone: 1800 879 028 Email: mtennant@tennantmining.com.au
Location	Approx 15 kms SE of Tennant Creek.
Description	Reopening of the Nobles Nob mine for mining of remnant ore and higher-grade sections of waste rock dumps for onsite processing through an onsite 700,000 tpa CIL processing plant. After initial onsite mining and processing, the mine will become a central processing plant for regional gold deposits, which will require separate approvals.
Product	Gold dore
Resource	+515,000 ounces (including TCMG-ERM JV resources)
Mine Life	8 years
Approvals	Environmental – Not required Mining Management Plan (MMP) approved in August 2022.
Proposed Schedule	Construction – Q 1 2024 Production – Q1 2025
Jobs	Construction – ~80 Production – ~160
Capex	\$90M.

Potential Mine Developments – Next 13-60 months

Mine Name	WONARAH/ARRUWURRA (STAGE 1)
Company	Avenira Limited (Minemakers Australia Pty Ltd)
Contact	Brett Clark – Chairman Phone: (08) 9264 7000 Email: bclark@avenira.com
Location	250 kms east of Tennant Creek
Description	Stage 1 - Trial mining proposed for H2 2023 (subject to approvals), followed by Direct Shipping Ore (DSO) operation at Wonarah. Stage 2 - Proposed Lithium Iron Phosphate LFP cathode plant to be built in Darwin. Initial capacity 10,000tpa increasing to 30,000tpa. Licencing agreement with Aleees in Taiwan. Only 2 LFP production manufacturers outside of China at present. BFS to commence Q4-2023. Stage 3 - Yellow Phosphorous and Battery Grade Thermal Phosphoric Acid Plant proposed to be built in two sections, at mine and in Darwin.
Product	Phosphate rock, Thermal Phosphoric Acid and Lithium Iron Phosphate.
Resource	Total – 66Mt @ 30.0% P ₂ O ₅ (27% cut-off); 812 Mt @ 18.1% P ₂ O ₅ (10% cut-off); 533 Mt @ 13.5% P ₂ O ₅ (15% cut-off)
Mine Life	>30 years
Approvals	Environmental: June 2013 Mining – pending Mining Management Plan
Proposed Schedule	DSO trial mining proposed for H2 2023, and full mining operations proposed to commence soon after subject to economics and FID. TPA Scoping Study progressing. BFS for LFP Cathode Plant to commence mid-2023. Financial close in H1 2024.
Jobs	DSO- 50 jobs. LFP Construction – above 200 Production – Circa 200 jobs at 30,000 tpa of LFP across Wonarah and Darwin operations rising up to 500 jobs at 100,000 tpa of LFP production and 800 jobs at 200,000 tpa of LFP production.
Capex	DSO - \$3 Million direct capex investment in assets at Wonarah. LFP 10,000tpa circa A\$180 Million.

Mine Name	ROVER 1 GOLD PROJECT
Company	Castile Resources Pty Ltd
Contact	Mark Hepburn – Managing Director Phone: 08 9488 4480 Email: : mark.hepburn@castile.com.au
Location	Approx 75 kms WSW of Tennant Creek
Description	The IOCG Rover 1 deposit will be the first mine to be developed in the Rover Mineral Field located to the west south west of Tennant Creek. The Project will involve the development of an underground mine with onsite processing facility and associated infrastructure. A Pressure Oxidation (POX) plant will dissolve the copper and cobalt and completely oxidise the sulphides associated with the gold. The Pre-Feasibility Study was released in Dec 2022 with the Bankable Feasibility Study aiming for completion in late 2023.
Product	Gold Dore, Copper Metal 99%, Pure Cobalt Metal 99%, and High Grade 96.4% Coal Washing Magnetite Product. (All products are for direct sale to “End Users”)
Mineral Resource	5.58 Mt @ 1.76 g/t Au, 1.49% Cu, 0.07% Co and 23.2% Magnetite. (JORC 2012)
Ore Reserve	3.11 Mt @ 2.02 g/t Au, 1.52% Cu, 0.07% Co and 22.92% Magnetite (JORC 2012)
Material Processed	4.31 Mt @ 1.94 g/t Au, 1.42% Cu, 0.07% Co and 22.33 % Magnetite (from PFS)
Mine Life	Initial project life of 8 years.
Approvals	Environmental –. Environmental studies ongoing. Environmental Referral to be submitted in mid-2023. Anticipate 18-24 months for approvals process. Mining – Mining approvals subject to environmental approvals and MMP.
Proposed Schedule	Construction – 2024/25 Production – TBA
Jobs	Construction – 200 Production – 140
Capex	Pre-Production Capex A\$279.5 Million (ASX: 5 Dec 2022)

Mine Name	FINNISS LITHIUM PROJECT (BP33 DEPOSIT)
Company	Core Lithium Limited
Contact	Mike Stone – Chief Operations Officer Phone: 08 8317 1700 Email: mstone@corelithium.com.au
Location	Approx 38 kms SSW of Darwin and 5.8 kms SSE of Grants mine
Description	BP33 (stage 2 of the Finnis Project) is a proposed underground mine involving a box-cut portal to a depth of 60-70m and construction of approx. 2150 metres of decline to access mine production levels over a four year mine life. Ore will be transported approx. 7.5 kms along a purpose built haul road to the Grants open pit mine and processing plant. No chemical processing is required.
Product	Pegmatite concentrate (6.0% Li ₂ O).
Mineral Resource	10.1 Mt @ 1.48% Li ₂ O (ASX: 26 Apr 2023)
Ore Reserve	3.9 million tonnes @ 1.4% Li ₂ O. (ASX: 12/06/2022) – update expected
Mine Life	Approx 4 years (from NOI)
Approvals	Environmental – The Notice of Intent was submitted in April 2020 and in September 2020 the EPA determined that the project would be assessed as a Supplementary Environmental Report under the new Environment Protection Regulations. Mineral Lease ML 32346 granted Jan 2021. SER submitted Nov 2021 & approved May 2022 Mining – Mining approvals granted in April 2023. (ASX: 11 May 2023) FID for BP33 by end Q1 2024. (ASX: 19 May 2023)
Proposed Schedule	Construction – 2024 Production – 2024/25
Jobs	Construction – 60 Production – 125-150 (for Finnis Project)
Capex	Board approves early works funding of \$45-50M (ASX: 19 May 2023) Project scope and capital cost estimate will now be determined using recent increased Mineral Resource.

Mine Name	CHARLEY CREEK
Company	Enova Mining Limited (formerly Crossland Strategic Metals Limited)
Contact	Eric Vesel – CEO/Executive Director Phone: +61419802839 (Aust) Email: contact@enovamining.com
Location	Approx. 95 km WNW of Alice Springs
Description	Potential new mine. Open cut mining & processing to recover heavy rare earth minerals from alluvial sands using a wet gravity concentrator, followed by dry separation processes to produce concentrates for leach extraction. Further potential to mine and process in situ weathered rock (sapolite/clays) below the sand horizon to recover scandium and rare earth metals using acid leach processes. Planned refinement of leachates to produce scandium oxide and rare-earth group products onsite.
Product	Rare earths, scandium oxide products and possibly other heavy mineral by-products.
Resource	Resource estimate released in 2013 (not currently 2012 JORC compliant)
Mine Life	Scoping Study released in 2013 based on 20 years (not currently 2012 JORC compliant)
Approvals	Development proposals yet to be submitted.
Proposed Schedule	Drilling program completed in March 2019. Since 2020 the company has completed numerous laboratory hydrometallurgical tests to assess leach extraction of rare earth and scandium metals. Bulk sampling field work at Cattle Creek began in Sept 2023. This will be followed by large scale heavy mineral separation testwork in Brisbane. Specialist consultants SRK Perth have developed an interim resource model. Assessment of this model awaits metallurgical test work and process concept as required for completion of a study establishing Reasonable Prospects for Eventual Economic Extraction as required by JORC 2012. Resource estimate for gravity separation project is expected to be complete by mid-2024 and Scoping Study in 2024. Scoping Study for acid-leach project expected for completion in 2024. Refer Company presentation of 31/08/2022 & Quarterly Report of 28/07/2023.
Jobs	150
Capex	\$250M

Mine Name	WINCHESTER
Company	Korab Resources Limited
Contact	Andrej Karpinski – Executive Chairman Phone: (08) 9474 6166 Email: akk@korab.com.au
Location	Approx 70 kms south of Darwin and 2 kms east of Batchelor.
Description	Magnesium metal production – potential shallow open pit mining operation with on-site processing, crushing, screening, sorting, kiln calcining, magnesium metal production in a DSC electric arc furnace and magnesium metal refining. Magnesium Carbonate DSO production - potential shallow open pit mining operation with on-site processing through simple crushing, screening and sorting. Ore will be trucked to Darwin port for export. Results of the Scoping Study for production of 50,000 tonnes per year of magnesium metal, magnesium carbonate ore and Dead Burned Magnesia released March 2022. Results of the Feasibility Study into production of magnesium carbonate ore and magnesium oxides (Dead Burned Magnesia (DBM) and Caustic Calcined Magnesia (CCM)) released in Jan 2015 and updated in Mar 2018, Sept 2018 and April 2019. The Project is currently undergoing a Scoping Study into magnesium metal production using alternative processing technology with results due in 2023.
Product	Magnesium Metal, DBM, CCM, Magnesite (Magnesium Carbonate) DSO
Resource	16.6 Mt @ 43.2% MgO
Mine Life	Magnesium metal Scoping Study based on 14 years at mining rate of 870,000 t. DSO Pre-Feasibility Study based on 300,000 tpa for 10yrs or 600,000 tpa for 5 yrs.
Approvals	Development proposals yet to be submitted. Development subject to environmental and mining approvals.
Proposed Schedule	Construction – 2024 Production – 2024/25
Jobs	Construction – TBA Production – Up to 120
Capex	Magnesium Carbonate (DSO) - \$2.5M (from Pre-Feasibility Study). Magnesium metal production - \$409-422M (from Scoping Study).

Mine Name	MERLIN DIAMOND PROJECT
Company	Lucapa Diamond Company Limited
Contact	Neil Kaner – Project Director, Australian Natural Diamonds Pty Ltd Phone: 08 9381 5995 Email: : general@lucapa.com.au
Location	Approx 720 kms SE of Darwin
Description	Reopen the Merlin Diamond mine on existing granted Mineral Lease. The project will involve mining of diamondiferous kimberlite pipes by conventional open pit mining followed by vertical pit mining below the base of the open pits. A new 1.2 Mtpa processing plant will be constructed. Scoping Studies were released in Dec 2021 and March 2022 and a Feasibility Study is due to be completed in H2 2023. A pilot program is being designed to mine and recover diamonds from some of the major pipes ahead of the larger project.
Product	Diamonds (average of 153,000 carats/annum)
Resource	27.8 million tonnes @ 16 carats per tonne for 4.4 million carats (JORC 2012)
Mine Life	14 years
Approvals	Environmental – Referral to NT EPA in H2 2023. Mining – Mining approvals subject to environmental approvals and MMP.
Proposed Schedule	Construction – 2024/2025 Production – 2025
Jobs	Construction – 120+ Production – 200 +
Capex	Scoping Study - \$96M (Pre-production capex) plus \$48M (Post-commissioning capex)

Mine Name		FOUNTAIN HEAD GOLD PROJECT
Company		PNX Metals Limited
Contact		James Fox – Managing Director & CEO Phone: (08) 8364 3188 Email: james.fox@pnxmetals.com.au
Location		Approx 160 kms SSE of Darwin.
Description		Re-open the historic Fountain Head mines to establish open cut mining operations based on conventional drill and blast mining techniques using excavators and haul trucks. Ore will be crushed, screened and processed using heap leach or CIL techniques. PNX have finalised a sale and purchase agreement for the Glencoe gold deposit located 3kms north of Fountain Head, Glencoe Mineral resource update released April 2021. Updated PFS for sequential development of Fountain Head and Hayes Creek Projects released in June 2021.
Product		Gold dore
Resource		2.94 Mt @ 1.7 g/t gold (Fountain Head) 2.1 Mt @ 1.2 g/t gold (Glencoe) 681 kt @ 2.2 g/t gold (Mt Porter)
Mine Life		5 years
Approvals		Development proposals (NOI) submitted to NT EPA in December 2019. In March 2020, NT EPA determine EIS required. Terms of Reference for EIS issued by EPA in May 2020 and Draft EIS submitted in June 2021. Supplement submitted Nov 2021. Second Supplement submitted in July 2022. Enviro approvals issued Feb 2023. Targeting Mining approvals in 2023.
Proposed Schedule		Construction – 2024 Production – 2025
Jobs		Construction – 50 Production – 134
Capex		\$46M (ASX 20 Dec 2021)

Mine Name		HAYES CREEK PROJECT (IRON BLOW & MT BONNIE)
Company		PNX Metals Limited
Contact		James Fox – Managing Director & CEO Phone: (08) 8364 3188 Email: james.fox@pnxmetals.com.au
Location		Approx 170 kms SSE of Darwin
Description		Re-open the historic Iron Blow and Mt Bonnie mines to establish open cut and underground mining operations and a regional 450,000 tpa processing plant at Fountain Head mine site. Scoping Study completed Mar 2016 & Preliminary Feasibility Study completed in July 2017. Updated PFS for sequential development of Fountain Head and Hayes Creek Projects released in June 2021.
Product		Zinc in concentrate, Precious Metals in concentrate
Resource		4.15Mt @ 4.4% zinc, 2.03 g/t gold, 128 g/t silver, 1% lead and 0.3% copper for contained metals of 182Kt zinc, 271Koz gold, 17.1Moz silver, 41Kt lead & 12Kt copper.
Mine Life		6.6 years
Approvals		Development proposals (NOI) submitted to NT EPA in August 2018. In Dec 2018, NT EPA determine EIS required. Terms of Reference for EIS issued by EPA on 2 August 2019 and Draft EIS scheduled for submission in Q2 2020. EPBC referral submitted in Feb 2019 and determined as “Not a Controlled Action”. NOI submitted to NT EPA in Dec 2019 for priority development of open pit mining and gold processing at Fountain Head. Hayes Creek Project to be developed sequentially after Fountain Head Project. Hayes Creek sulphide approvals have commenced. Mining approvals dependent on environmental approvals.
Proposed Schedule		Construction – 2025/26 Production – 2026/27
Jobs		Construction – 150 Production - 130
Capex		Approximately \$65M (PFS June 2021)

Mine Name	MT. BUNDY GOLD PROJECT (RUSTLERS ROOST, QUEST 29 & TOMS GULLY)
Company	Primary Gold Pty Ltd
Contact	Dr Mark Qiu – Managing Director & CEO Phone: 0424288016 Email: : giuym@hanking.com.au
Location	Approx 100 kms SE of Darwin
Description	Reopen the Rustlers Roost, Quest 29 and Tom's Gully mine sites. The proposal will involve open-cut mining and expansion of all existing open-cut pits (Rustlers Roost & Quest 29) via conventional truck and shovel methods. A new open pit called Annie Oakley 800m to the west of Rustlers Roost will be added to the project. The mine sites are approx. 11 kms apart. Ore from both sites will be processed at a conventional Carbon in Leach processing facility located at Rustlers Roost site to produce gold bullion. Reopening of Toms Gully with development of underground and surface facilities, including refurbishment of existing process plant. Feasibility Study updated Nov 2021. Ore will be processed at a rate of 5 million tonnes per annum over a 12 year mine life.
Product	Gold dore
Resource	109 million tonnes @ 0.9 g/t gold for 3.0 million ozs (Mar 2022)(RR & Quest 29) 1.1 million tonnes @ 8.9 g/t gold for 315,000 ozs (Toms Gully)
Mine Life	Ore Reserve of 775,000 tonnes @ 6.9 g/t gold for Toms Gully. 12 years
Approvals	Environmental –Tom's Gully environmental approval issued in Feb 2020. Rustlers Roost and Quest 29 approvals issued in June 2023. Mining – Mining approvals subject to Mining Management Plan. A MMP incorporating all three mine sites is being prepared for submission in late September 2023.
Proposed Schedule	Construction – 2024/25 Production – 2025/26
Jobs	Construction – 150 Production – 314
Capex	\$412M

Mine Name	THE CHANDLER FACILITY
Company	Tellus Holdings Ltd www.tellusholdings.com.au
Contact	Mr Nate Smith – Managing Director and CEO Phone: (02) 8257 3395 Email: info@tellusholdings.com.au
Location	Approx 120 kms south of Alice Springs
Description	Underground mine development and integrated hazardous waste facility. Development of an underground halite (rock salt) mine, reusing the mined voids for the permanent isolation of hazardous wastes (as listed under the NT Schedule 2 of the Waste Management Pollution Control Regulations).
Product	Industrial salt (and permanent isolation of hazardous waste)
Resource	309 Mt Halite (NaCl) JORC Measured Resource
Mine Life	25 years (minimum)
Approvals	Environmental – NT environmental assessment report issued on 30 November 2017. Federal EPBC Act approvals issued 5 September 2018. Project section 14A Amendment approved by NT EPA in June 2020. Mining –Mining Authorisation and MMP approval not yet granted.
Proposed Schedule	Pre-Feasibility Study completed. Native Title – ILUA negotiations ongoing. Bankable Feasibility Study – On Hold. Construction 3-4 years. Operations 25 years minimum.
Jobs	Institutional Control Period (ICP) – 100 years (minimum). Construction – 300 (direct) Production – 150 (direct)
Capex	Approx \$1,000 M

Mine Name	MOLYHIL
Company	Thor Energy PLC have entered into an earn-in agreement with Investigator Resources
Contact	Nicole Galloway Warland – Managing Director Phone: (08) 7324 1935 Email: nicole@thorenergyplc.com
Location	240 kms northeast of Alice Springs
Description	Proposed open pit mining operation with on-site processing by flotation to produce W and Mo concentrate. Definitive Feasibility Study upgrade completed in August 2018. Letter of Intent signed for tungsten offtake. Development subject to finance. Additional drilling being undertaken to increase resource and mine life. Thor have entered into a \$8M farm-in agreement over 7.5 years with Investigator Resources to accelerate the Molyhil Project.
Product	Tungsten (scheelite) and Molybdenum concentrates.
Resource	4.7Mt at 0.28% WO ₃ and 0.13% Mo (indicated and inferred) – Thor ASX 23 Aug 2018. Plus Bonya Tungsten deposits (740,000T @ 0.21% WO ₃ and 0.09% Cu) Bonya Copper deposit (230,000t @ 2%Cu – Inferred) (40% Thor)
Reserve	Open cut Ore Reserve of 3.5 Mt at 0.29% WO ₃ and 0.12% Mo (probable) – DFS study results as reported by Thor to ASX 23 Aug 2018.
Mine Life	Initially 7 year as open pit, with substantial upside potential from subsequent underground potential and from nearby outcropping Bonya tungsten resources, and copper resource at Bonya.
Approvals	Environmental – Nov 2011 Mining – pending approval of MMP with Investigator as nominated Operator. NT Major Project Status granted in July 2020.
Proposed Schedule	Development subject to obtaining project finance and securing the balance of concentrate off-take agreements. Timeframe for construction and development under review subject to Joint Venture partnership with Investigator Resources.
Jobs	Construction – 60 Production – 70
Capex	\$69M

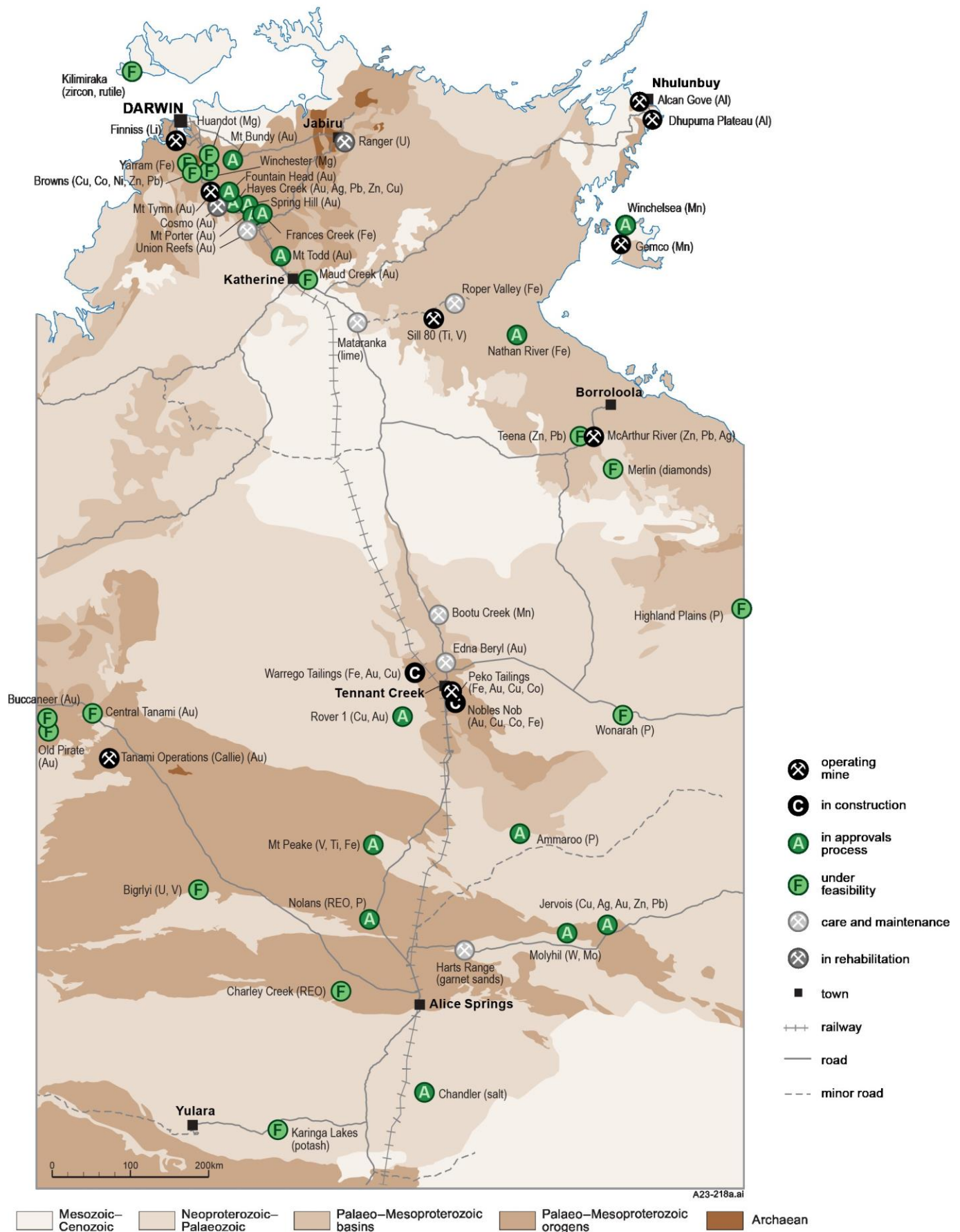
Mine Name	MOUNT PEAKE
Company	Tivan Limited (previously TNG Limited)
Contact	Grant Wilson – Chair Phone: (08) 9327 0900 Email: corporate@tivan.com.au
Location	235 kms north of Alice Springs
Description	Tivan Limited is a Darwin based company that is progressing the TIVAN [®] mineral processing technology in collaboration with Australia's national science agency CSIRO, for the production of vanadium pentoxide, titanium dioxide pigment and iron oxide fines. Tivan has two large vanadiferous titanomagnetite deposit resources in Australia-including the 100% owned Mt Peake Project. Mt Peake has received Major Project Status from the Australian Federal Government and the Northern Territory Government.
Product	High purity Vanadium (99% V ₂ O ₅), Titanium Pigment & Iron oxide (+64%).
Resource	160Mt @ 0.3% V ₂ O ₅ , 5% TiO ₂ , 23% Fe (120Mt Measured JORC)
Mine Life	Under review
Approvals	NT and Federal environmental approvals received for mining and beneficiation operations at Mount Peake Mine Site. Environmental and water approval processes are under review.
Proposed Schedule	Construction – Under review Production – Under review
Jobs	Construction – Under review Production – Under review
Capex	Under review

Mine Name	AMMAROO	
Company	Verdant Minerals Ltd	
Contact	Chris Tziolis – Managing Director Phone: (08) 8942 0385 Email: ctziolis@verdantminerals.com.au	
Location	220 kms SE of Tennant Creek	
Description	New mine – open cut strip mining operations with crushing and screening to produce Phosphate Rock for conversion to phosphoric acid for the manufacture of ammonium phosphate fertilizers. Potential to commence operations with phosphate rock export. Bankable Feasibility Study (DSO) was completed in May 2018. Takeover by CD Capital in June 2019 & company privatised – currently assessing onsite ammonium phosphate fertiliser production option. Variation to the Project submitted Nov 2022.	
Product	1,000,000 tpa Ammonium Phosphate	
Resource	Global Resource of 1.145 billion tonnes @ 14% P ₂ O ₅ (10% cut-off) or 338 Mt @ 18% P ₂ O ₅ (15% cut-off) Measured Resource of 138 Mt @ 15.7% P ₂ O ₅ (10% cut-off)	
Mine Life	25 years plus	
Approvals	Environmental – Oct 2018 (NT) & June 2018 (Federal) for rock phosphate project. A variation to the Project for onsite production of ammonium phosphate fertilisers was submitted to the EPA in Nov 2022. Revised Terms of Reference for an EIS were issued by the NT EPA on 14 June 2023. Proponent is preparing the EIS. Mining – pending outcome of environmental review, grant of Mineral Leases & approval of Mining Management Plan.	
Proposed Schedule	Construction – 2025	Production – 2028
Jobs	Construction – Peak at 1600	Production – 400
Capex	Estimate \$3 Billion	

Mine Name	MT TODD	
Company	Vista Gold Australia Pty Ltd	
Contact	Brent Murdoch – Director & General Manager Australia Phone: (08) 8941 9105 Email: bmurdoch@mttodd.com.au	
Location	250 kms south of Darwin and 55 kms north of Katherine	
Description	Reopen the Mt Todd Gold Mine. Conventional open pit mining extracting up to 17.8 million tonnes per annum of ore for onsite processing through newly constructed CIL Plant. Feasibility Study and NT Environmental Impact Statement completed. Federal approval under the EPBC Act was granted in Jan 2018. An update of the Prefeasibility Study was completed in Jan 2018. A further update of the Pre-Feasibility Study released in Sep 2019. Feasibility Study released Feb 2022. The Mt Todd Agreement between the NT Government and Vista Gold has been extended until 2029. Vista completed an internal scoping study of smaller scale development alternatives for Mt Todd. Since then there has been both new and renewed interest in the optionality of Mt Todd under different development strategies.	
Product	Gold dore (av. 395,000 ozs pa)	
Resource	7.4 million ozs of measured and indicated and 1.7 million ozs of inferred	
Mine Life	23 years (including 2 years construction plus 5 years closure/reclamation)	
Approvals	Environmental – June 2014 (NT), Federal EPBC approvals issued Jan 2018. Mining – MMP approval in June 2021. Finance and FID in 2024. All the approvals are maintained as development activities identify optimisations.	
Proposed Schedule	Construction – 2025	Production – 2027
Jobs	Construction – up to 450	Production – 400
Capex Initial	US\$892M (from Feasibility Study Feb 2022)	

Mine Name	WINCHELSEA MANGANESE PROJECT
Company	Winchelsea Mining Pty Ltd
Contact	Mark Hewitt – CEO Winchelsea Mining Phone: TBA Email: mhewitt@wmining.com.au
Location	Approx 650 kms SE of Darwin and 50 kms off the eastern coast of Arnhem Land.
Description	Conventional open pit strip mining utilising excavators and dump trucks. Ore will be hauled by dump trucks to a single stage crushing and wet screening plant for processing and then moved to product stockpiles adjacent to the barge loading facility (BLF). Multiple lump and fines manganese products will be produced. Product will be reclaimed by front-end loader and fed onto a conveyor to the BLF where manganese will be loaded on to barges and transhipped to Supramax vessels in the offshore anchorage location.
Product	Lump and fine manganese ore
Mineral Resource	Estimate of 18.9 million tonnes @ 23.6 % Mn (Aug 2023 BFS by Xenith)
Ore Reserve	Estimate of 11.8 Mt @ 26.4% Mn (Aug 2023 BFS by Xenith)
Mine Life	Estimated mine life of 11 years
Approvals	Environmental – Referral submitted to EPA in Dec 2020 and a variation to the Referral submitted in May 2021. The EPA require EIS in Aug 2021 with TOR issued in Nov 2021. EIS requires variation for new marina design, and expected to be re-submitted end of Sept 2023. Mining Agreement between the Anindilyakwa Land Council and Winchelsea Mining was completed in April 2021. Mineral Lease 32704 was granted on 25 Mar 2022 for a period of 30 years.
Proposed Schedule	Mining – Mining approvals are subject to environmental approvals and MMP approval. Construction – 2024 Production – 2025
Jobs	Construction – 100 Production – 55 plus 100 personal support services staff
Capex	\$212M

Northern Territory mineral projects



September 2023